

## ABSTRACT OF THE DISCLOSURE

A three-dimensional crossbar network of a distributed  
exchanger type for connecting  $L \times M \times N$  arithmetic units, in  
which an interface conversion LSI 32 for transferring a packet  
5 to a Z axis crossbar switch 41 is provided between an X axis  
crossbar switch 21 and a Y axis crossbar switch 31. The  
interface conversion LSI 32 has an optical module 33 so that  
an optical fiber 300 can be applied as a packet transfer path  
between the Y axis crossbar switch and the Z axis crossbar  
10 switch.